



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBST1007-3
Job Sheet 171044



Part No: RBST1007-3

Job Qty: 4 ea

Part Name: Retainer



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/26/18

Job Tracking No:

Due Date: 1/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: RBST1000 REV.7 IPP REV:A 18.01.25 NEW ISSUE JFC VERF:DP

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	4 Ea		1/30/18	0.00	0.00	Start Up Machining-3		
110	CNC Lathe	4 pcs		1/31/18	0.00	2.00	MORI SL-154		
120	QC	4 pcs		1/31/18	0.00	0.00	QC2 Machining-4		
122	Mill Conv	4 pcs		1/31/18	0.00	0.00	Mill Conv 2		
124	QC	4 pcs		1/31/18	0.00	0.00	QC2 Machining-4		
130	QC	4 pcs		1/31/18	0.00	0.00	QC8 Machining-4		
180	Packaging	4 pcs		1/31/18	0.00	0.00	Packaging3-1		
190	QC21-SA	4 Ea		1/31/18	0.00	0.00	QC21		

Part Op 110 - 1-Machine as per DWG. FB755 FOLIO REV: _____ DWG REV: _____ 2-Deburr
Descriptions: 122 - 1- Machine as per DWG 2- Use fixture DT 10377

DAS
21
9-20

MAR 28 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-BRONZE-C63000-R1.500	Bronze C63000 Round Bar 1.500"	.0800 ft (.02 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-BRONZE-C63000-R1.500	0	3	0

Allocated Container Detail

Qty	Container No	Location	Init
0	S047745	start up machining-3	

Part Specifications

Specifications could not be found.



Container No: S047757



Part: RBST1007-3

Job No: 171044

Serial No/Batch: S047757

Revision: 7

Inspector:

Date: 03/06/18

Plex 3/6/18 11:07 AM Dart.lajeunesse.marie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																



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Job Qty: 1 ea

Part Name: Retainer



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/26/18

Job Tracking No:

Due Date: 1/31/18

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: RBST1000 REV.7 IPP REV:A 18.01.25 NEW ISSUE JFC VERF:DP

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Bill of Materials

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					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		1/30/18	0.00	0.00	Start Up Machining-3		SL 18-3-5
110	CNC Lathe	1 pcs		1/31/18	0.00	0.50	MORI SL-154		SL
120	QC	1 pcs		1/31/18	0.00	0.00	QC2 Machining-4		SL
130	QC	1 pcs		1/31/18	0.00	0.00	QC8 Machining-4		SL 18-03-27
180	Packaging	1 pcs		1/31/18	0.00	0.00	Packaging3-1		
190	QC21-SA	1 Ea		1/31/18	0.00	0.00	QC21		

Part Op 110 - 1-Machine as per DWG. FB755 FOLIO REV: _____ DWG REV: _____ 2-Deburr
Descriptions:

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-BRONZE-C63000-R1.500	Bronze C63000 Round Bar 1.500"	.0300 ft (.03 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MT-BRONZE-C63000-R1.500	0	0	0

Part Specifications

Specifications could not be found.

Plex 1/26/18 8:49 AM Dart.lajeunesse.marie



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S047757



Part: RBST1007-3

Job No: 171044

Serial No/Batch: S047757

Revision: 7

Inspector:

Date: 03/05/18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

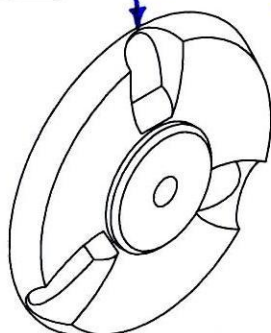
This drawing, specifications, and standards contained herein are the sole property of Dart Aerospace and may not be reproduced or used in any fashion without the prior written permission of Dart Aerospace Eugene, OR.

File off thin edge to create opening of approx. 1/8"

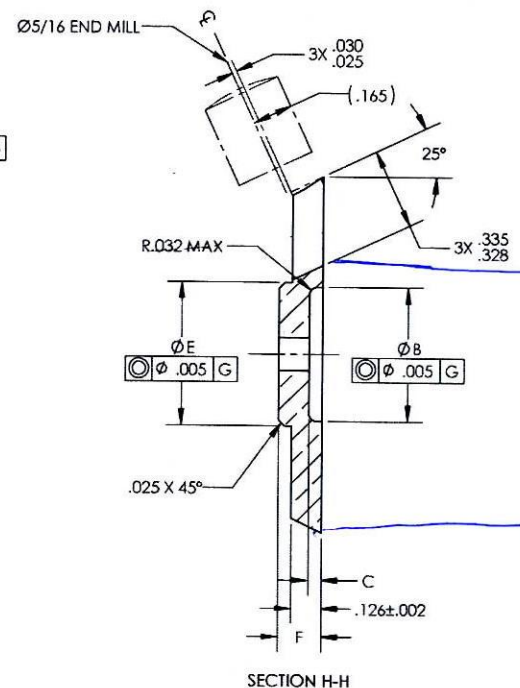
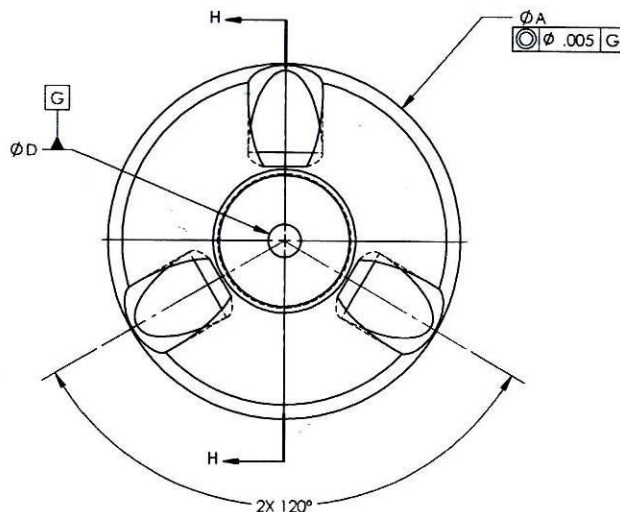
3x Typ.

18/03/27

mLee



REVISIONS			DATE	INITIAL	APPROVED
REV	ECP	DESCRIPTION			
7	15-0033	3 IMPROVED CDDT	2/13/2015	DPD	SM



TOOL NUMBER	ØA + .002 - .002	ØB + .010 - .000	ØC + .020 - .000	ØD + .004 - .001	ØE + .000 - .015	F + .010 - .010	(P.D.)
RBST1000	1.075			.104			.500
RBST1001	1.140						.563
RBST1002	1.171						.594
RBST1003	1.212						.625
RBST1004	1.245						.660
RBST1005	1.297						.712
RBST1006	1.391	N/A	N/A				.806
RBST1007	1.422						.837
RBST1008	1.460						.876
RBST1009	1.485						.900
RBST1010	1.553						.970
RBST1011	1.610			.136			1.025
RBST1012	1.647						1.063
RBST1013	1.672						1.087
RBST1014	1.835	1.003	.055				1.251
RBST1015	1.897	1.016	.055				1.313
RBST1016	2.022	1.088	.019				1.438
RBST1017	2.085	N/A	N/A				1.501
RBST1018	2.210	1.252	.034				1.626
RBST1019	2.585	1.517	.118				2.001
RBST1020				1.714	.180		

*Use JIG

DT 10377

18/03/27

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 171044
mLee
1801-26

RETAINER

DART AEROSPACE	
TITLE RBST1000 THRU 1020 DRILL PRESS TRI-ROLLER SWAGING TOOL	
DWG NO. SEE TABLE-3	REV 7
MATERIAL BRONZE	
TREAT FRESH	
SPEC	
DRAWN BY: PERRITT	CHECKED: MACKOVJAK
QA APPR: ANDERSON	APPROVED: LINDSAY
SCALE 2:1	DATE 1/4/2008
SHEET 3 OF 9	

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

INSPECTION SHEET

Rev	Date	Change	Revised by	Approved
A	14.07.31	New Issue	KJ	

DQA:

Date:

QA Closed:

Date:

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐Scrap ☐Use-as-is ☐Suspected Unapproved ☐Skid-tube ☐Machining ☐Thermoforming ☐Large Fab ☐

AGAINST DEPARTMENT/PROCESS

Cross tube ☐Small Fab ☐Finishing ☐Composite ☐Water Jet ☐Prod. Eng. Coord. ☐Rec/Store/Packaging ☐Supplier ☐Engineering ☐Quality ☐Other ☐

Date :

Step #:

QTY Effective :

MRB (QSI042) Approval

Description Work Order Deviation

Disposition

Completed By

Lead hand / Supervisor
Approval VerificationQC / QA Coordinator
Approval

Root Cause

Environment ☐Design ☐Doc/Data ☐Equip/Tooling ☐Handling/Pre ☐Material ☐Internal Transport ☐Tribal Knowledge ☐LOA ☐Substation ☐Past Expiry Date ☐Misidentified ☐No Re-verification ☐Operator ☐Offset/Setup ☐Supplier ☐Training ☐Use for Testing ☐Poor Information ☐Rushing ☐Product Improvement ☐Process Improvement ☐Manufacturing Process ☐Past Due ☐Pressure/Forced ☐Bending ☐Centre Not Concentric ☐Cracks ☐Crimp/Kink/Ripple/Wave ☐Cuffs ☐Crushing ☐Heat Treat ☐Wave/Twist in Tube ☐Marks/Chatter ☐OTHER : ☐

FAULT CATEGORY

Temperature/Cure ☐Set-up ☐BOM/Route ☐Broken/Damage/Defect ☐Inspection Incomplete/Unqualified ☐Contamination ☐Countersink ☐Cut Too Short ☐Instructions Incomplete/Unclear ☐Drill Holes ☐Power Loss/Surge ☐Folio/Program ☐Grain ☐Weld ☐Wrong Stock Pulled ☐Out of Sequence ☐Off-set ☐Mislabeled ☐Fit/Function ☐Misaligned/off center ☐Positioned Wrong ☐Outside Dimensions ☐Over/Under tolerance ☐Part Incorrect ☐Part Lost/Missing ☐Part Moved ☐Drawing ☐Finish ☐Misread ☐Turning Sequence ☐